

An Empirical Analysis of the Ethical Reasoning of Tax Practitioners

Elaine Doyle · Jane Frecknall Hughes ·
Barbara Summers

Received: 12 May 2011 / Accepted: 4 May 2012 / Published online: 21 May 2012
© Springer Science+Business Media B.V. 2012

Abstract How tax practitioners approach ethical dilemmas remains generally unexplored in academic literature. We use here Rest’s original Defining Issues Test (Development in judging moral issues. Minneapolis: University of Minnesota Press, 1979; Moral development. Advances in research and theory. New York: Praeger Publishers, 1986), combined with a tax context-specific test and in conjunction with a control group of non-tax specialists, to examine tax practitioners’ moral reasoning in a social and tax context. We investigate: (i) the effect of a tax context on issues raised (finding that practitioners generally reason at lower levels than in social scenarios); (ii) whether the profession attracts people who reason at certain levels (finding that it does not); and (iii) whether practitioners are affected by training/socialization in their professional context (finding that that they are).

Keywords DIT · Moral reasoning · Revenue practitioner · Tax practice · Tax practitioner

The paper received an award for best paper by a doctoral student.

E. Doyle (✉)
Kemmy Business School, University of Limerick,
Limerick, Ireland
e-mail: elaine.doyle@ul.ie

J. Frecknall Hughes
The Open University Business School, Walton Hall,
Milton Keynes MK7 6AA, UK
e-mail: j.frecknall-hughes@open.ac.uk

B. Summers
Leeds University Business School, University of Leeds,
Maurice Keyworth Building, Leeds LS2 9JT, UK
e-mail: bs@lubs.leeds.ac.uk

Introduction

In recent years, there has been a growing concern regarding the ethical behavior of tax practitioners (Shafer and Simmons 2008). Many firms in the United States, have been investigated for facilitating aggressive tax avoidance through the marketing of questionable tax shelters (Herman 2004; Johnston 2004; Scannell 2005) and companies, driven by their top executives, are often accused of using “tax havens” or tax shelters for the primary purpose of avoiding or, indeed, evading their tax obligations (Dyregang et al. 2007, 2010; Godar et al. 2005; Wilson 2009). Shafer and Simmons (2008) suggest that some tax advisers have abandoned concern for the public interest or social welfare in favor of commercialism and client advocacy, and go so far as to suggest that tax practitioners do not believe strongly in the value of ethical or socially responsible corporate behavior.

While ethics have been identified as a significant variable influencing tax practitioners (Milliron 1988) and some studies have identified the particular ethical issues they face (see, in particular, Marshall et al. 1998, in Australia and Yetmar et al. 1998, in the United States), to date little work has been done to investigate the manner in which tax practitioners approach ethical dilemmas, in other words, their ethical reasoning. We look to address this gap in the literature here. If action is to be taken to encourage an improvement in the ethical behavior of tax practitioners, a better understanding of the factors contributing to unethical behavior is needed. It may be that the tax profession, for example, attracts individuals who are more prone to low-level ethical reasoning, which is one of the components of ethical behavior according to Rest’s (1983) four component model. On the other hand, considering issues in the tax context may lead to forms of thinking that make unethical

action less problematic for both tax practitioners and non-specialists, such as seeing tax evasion as a “victimless crime,” or making it easier to focus on the benefits to the individual of saving tax, rather than the loss to society in aggregate from taxes not collected. Alternatively, being involved professionally in the tax industry may affect ethical reasoning. For example, does the need to be aware of the intricate details of regulations lead people to think more in terms of following the letter of the law rather than its spirit or does the culture in the organizations in which tax practitioners’ work promote certain ways of viewing a situation? Different causes of unethical behavior, or combinations thereof, would need to be addressed using different approaches.

In this study, we look to unpick the potential influences of the individual decision maker and the context in which ethical dilemmas arise, by assessing moral reasoning using a well-known and validated psychometric instrument, the Defining Issues Test (DIT), which has been used in numerous studies investigating moral reasoning in a variety of business contexts. We combine the original DIT with a context-specific adaptation of the instrument which poses similar ethical dilemmas, but within the tax domain.

We use a 2×2 quasi-experimental design to compare ethical reasoning across different contexts (social vs. tax) and different groups of participants (tax professionals vs. non-specialists) in Ireland.¹ Control groups of non-specialists have not previously been included in context-specific DIT research, but the use of a control group is important here in separating the characteristics of the individual from those of the context. We also further subdivide tax professionals into those who work for private firms (whose focus tends toward minimizing tax liabilities for their clients) and those who work for the Revenue authority (and are therefore focused on collecting taxes to be used for the public good) to investigate further the impact of socialization in the tax profession. Our investigation addresses the following research questions:

1. Is the level of moral reasoning of those in the tax profession generally lower than in the population as a whole?
2. Does locating an ethical dilemma in a tax context alter the way in which people reason about it?
3. Does the professional involvement of tax professionals with tax affect their reasoning in the tax context?
4. Does the socialization/training of tax professionals affect their reasoning in the tax context?

The remainder of this article is set out as follows. “[Measuring Levels of Moral Reasoning: The Defining](#)

[Issues Test \(DIT\)](#)” section discusses the development of the moral reasoning test used in this article, the DIT, and outlines the need for context to be considered in examining moral reasoning. “[Research Questions and Hypotheses](#)” section develops the research questions into testable hypotheses, while “[Research Method](#)” section describes the methodology used. “[Results](#)” section presents the findings which are then discussed in “[Discussion](#)” section. The final section provides conclusions to the article.

Measuring Levels of Moral Reasoning: The Defining Issues Test (DIT)

Cognitive developmental psychologists believe that before an individual reaches a decision about how and whether to behave ethically in a specific situation, ethical or moral reasoning takes place at a cognitive level.² The psychology of moral reasoning aims to understand how people think about moral dilemmas and the processes they use in approaching them. The considerations used by individuals as a basis for their ethical reasoning develop as they grow older and there is empirical evidence to support the contention that moral reasoning ability develops sequentially, progressively considering broader issues (Kohlberg 1973; Rest 1979a).

Kohlberg (1969) developed a model of ethical cognition based on interview studies in which participants responded in an open-ended way to ethical dilemmas. He sets out three developmental levels: “pre-conventional morality,” “conventional morality,” and “post-conventional morality.” At the pre-conventional level, an individual is focused entirely on him/herself. He/she considers him/herself removed from the normal rules and expectations of society. Behavior appearing ethical to a person at this level is motivated solely by the person’s desire to avoid punishment or because the outcome of the behavior is in his/her best interests. At the conventional level of reasoning, an individual is concerned about family, society, the welfare of others, and the perception that others have of him or her. Individuals at this level see themselves in relation to others and as part of, and loyal to, the wider community. At the post-conventional level, also known as the principled level of reasoning, an individual is concerned about others in society and will act on behalf of others even if that means breaking established rules of law. Within each of the three levels, there are two developmental steps, resulting in a total of six stages, with the second stage in each level being a more advanced and

¹ Ireland is a common law jurisdiction, so the results of this study are inherently relevant and applicable.

² The terms “morality” and “ethics” are used interchangeably in the literature on the psychology of moral reasoning (Rest 1994), and we will follow this practice throughout this article. Various authors have proposed distinctions, but there does not seem to be one, generally accepted distinction.

organized form of the first. Each successive stage in Kohlberg's model is considered qualitatively higher both cognitively and ethically. Individuals move upwards through the stages during their development, although not all individuals reach post-conventional morality.

Kohlberg's perspective revolves around the idea that our moral judgements are the product of a conscious decision process during which individuals move directly from conscious reasoning to moral verdict (Kohlberg 1981). It therefore ignores the importance of moral emotions (Greene and Haidt 2002). Many researchers argue that both conscious reasoning and intuition play a part in judgement (Greene and Haidt 2002; Cushman et al. 2006). The moral dilemma itself (Greene et al. 2001), the cognitive focus of the judgement maker (Lewicka 1997), and the moral principle being triggered (Cushman et al. 2006) may all impact on the extent to which cognitive reasoning dominates intuition or vice versa. It is acknowledged by Haidt (2007) that the use of conscious verbal reasoning, the re-framing of the scenario, and discussing the situation with others serve to override an individual's immediate intuitive response, particularly in a professional context. Given that tax professionals would have to communicate their rationale to the client, and potentially the Revenue authority, and that the situation is not personal to them so reasoning may play a more important role (as suggested by Greene et al. 2001), Kohlberg's cognitive moral reasoning approach can provide useful insight and remains a valid construct in the context of examining tax practitioners.

Rest developed the DIT in 1979 (Rest 1979a) using Kohlberg's cognitive development theory as a basis. The DIT tests moral reasoning using social dilemmas. It is a self-administered, multiple-choice instrument, making use of the same ethical dilemmas used by Kohlberg in his original analysis. Rest (1979b) developed the items for the instrument based on an interpretation of the stages in Kohlberg's stage-sequence theory (see Table 1). The test assumes that a person

can operate at many stages at once, and, rather than attempting to assess the stage to which a person "belongs," it instead measures the comprehension and preference for the principled level of reasoning (i.e., post-conventional reasoning at stages five and six) (Rest et al. 1999).

Participants taking the DIT are presented with either six (long-form DIT) or three (short-form DIT) ethical dilemmas stated in a third person form. The dilemmas are presented as narratives describing the circumstances of a third party faced with making a decision on how to act in a given scenario. After reviewing the dilemmas, participants choose what the actor should do in the circumstances from three options offered: "take the action," "do not take the action," or "cannot decide." They are then asked to rate the importance of 12 considerations relating to the particular dilemma, indicating how important each is (in their opinion) in making the decision described in the scenario using a five level scale (great importance, much importance, some, little, or no importance). The 12 statements were constructed by Rest to include considerations that would be prevalent at particular stages of ethical reasoning development in each situation. Once the 12 items have been rated, the participant is asked to select the four items that he/she considers to be of most importance to the decision and to rank these in order of importance. The first of the DIT scenarios, "Heinz and the Drug," is set out in Appendix 1 as an example.

In scoring the DIT, weighted points are allocated to the considerations chosen as the four most important in each scenario. The points corresponding to the highest modes of ethical reasoning (stages five and six) are used to construct a single measure known as the "P" score (standing for "principled moral thinking") for each participant (Rest 1994). Since the Rest (1979b) model is developmental and sequential, a higher P score implies a lower percentage of reasoning at lower levels. Thus, the P score measures the percentage of a participant's thinking that is at a principled

Table 1 Six stages of moral reasoning^a

Pre-conventional: Focuses on the individual	Stage one	The morality of obedience: do what you are told
	Stage two	The morality of instrumental egoism and simple exchange: let's make a deal
Conventional: Focuses on the group and relationships	Stage three	The morality of interpersonal concordance: be considerate, nice and kind: you'll make friends
	Stage four	The morality of law and duty to the social order: everyone in society is obligated to and protected by the law
Post-conventional: Focuses on the inner self and personally held principles	Stage five	The morality of consensus-building procedures: you are obligated by the arrangements that are agreed to by due process procedures
	Stage six	The morality of non-arbitrary social cooperation: morality is defined by how rational and impartial people would ideally organize cooperation

^a Adapted from Rest (1994)

level. Based on hundreds of studies carried out in the United States, Rest and Narvaez (1998) report that junior high students generally average P scores in the 20s, senior high students in the 30s, college students in the 40s, graduate students in the 50s, and moral philosophers in the 60s.

The Need for Context-Specific Tests of Moral Reasoning

While the DIT has been described as “a broad, general measure of moral reasoning” (Fisher 1997, p. 143), concern has been expressed that it does not, and cannot, fairly represent the reasoning used when facing ethical dilemmas in a business context (see, for example, Dellaportas et al. 2006; Elm and Nichols 1993; Fraedrich et al. 1994; Trevino 1986, 1992; Weber 1990; Welton et al. 1994). There are several reasons why individuals may behave differently in a business versus a social context. Jackall (1988) suggests, for example, that what is ethically acceptable at work may not be acceptable at home or outside the corporation. He posits that the finding in many studies that managers use lower level ethical reasoning to resolve business problems is consistent with an understanding of human behavior based on cultural anthropology, where individuals play different roles that allow them to accept different values, norms, and behaviors in different life domains (e.g., home and work). This suggests that socialization at work might be expected to affect attitudes to particular issues encountered in the work context.

Becoming a professional involves adopting certain values and being induced into a vast array of both formal and informal norms, which are both taught and learned, whether consciously or not (Anderson-Gough et al. 2002, p. 41). Socialization theory leads us to expect an eventual convergence of personal values with those of the organization. Individuals are molded to fit the organizational environment, or selected and promoted on the basis that they fit into the prevailing culture, while those who do not fit in leave the organization (Douglas et al. 2001). O’Fallon and Butterfield (2005) report widespread support for the notion that ethical climates and cultures exist within organizations. While socialization has never been explicitly examined in the literature on tax practitioners and ethics, the existence of a socialization effect within the accounting profession is widely accepted (see, for example, Abdolmohammadi et al. 2003; Collins 1978; Jones and Hildebeitel 1995; Ponemon 1992). Abdolmohammadi et al. (2003) found that the selection-socialization effect in the accounting profession results in the disproportionate hiring of individuals with a cognitive style associated with relatively low levels of ethical reasoning. They advance two reasons for this. First, individuals with a cognitive style

linked to low-level moral reasoning self-select into the accounting profession and second, once there, they tend to promote those individuals with the same cognitive style as their own. While many tax practitioners do work in large accounting firms, which have been the subject of socialization research, many others work in legal practices, in industry, with a Revenue authority or as sole practitioners.

Training and professional knowledge may also have an impact, particularly in areas such as tax, where the legislation is not always clear about the action required in a particular situation, leaving a range of options for which a case can be argued (Hume et al. 1999). Awareness of this ambiguity may make it easier for, or indeed lead, practitioners to decide on the basis of other considerations (such as benefit to someone in the role of a client in the scenario, even if this implies a lower level of moral reasoning than considering society as a whole). Without detailed knowledge of the possible options that a tax practitioner might have, an inexperienced person might have to reason from first principles, leading to more weight being given to society as a whole. The business context may also affect individuals’ reasoning regardless of professional involvement. For example, in the tax context, the anonymity of those who are losers if tax is not paid could lead to perceptions that avoidance or evasion of tax is a victimless crime.

These concerns about the effect of a specific context have led to the development, in a number of areas, of instruments based on the DIT, but containing context-specific scenarios. For example, in business-related areas, there are accounting specific tests (Thorne 2000, 2001; Welton et al. 1994); broad business dilemmas and auditing scenarios (Massey 2002; Weber 1991); management vignettes (Loviscky et al. 2007); and a test of taxpayer compliance (Fisher 1997). We also use a context-specific version of the DIT, as discussed below.

DIT Studies Most Relevant to the Tax Context

While Kohlberg’s theory on moral reasoning and Rest’s DIT have not previously been used to examine tax practitioners, some work has been done in related areas, notably in the accounting domain and among taxpayers. This literature is used to motivate some of our hypotheses, while noting that tax practitioners are not always accountants (lawyers, for example, often work as tax practitioners) and that issues such as ambiguity and the “victimless crime” perception, which are present in the tax context, may be less prevalent in other domains. Indeed, it has been recognized that one of the deficiencies of ethics research in accounting has been the failure to separate the accounting profession into major functional areas when analyzing ethical issues (Marshall et al. 1998).

The DIT has been used in numerous studies to investigate the impact of different variables on the ethical reasoning of accountants, such as age (Etherington and Hill 1998; Ponemon and Gabhart 1993); gender (Etherington and Hill 1998; Eynon et al. 1997; Jones and Hildebeitel 1995); ethical intervention³ (Armstrong 1993; Bay and Greenberg 2001; Hildebeitel and Jones 1992; Ponemon and Gabhart 1993; Shaub 1994; St. Pierre et al. 1990); objectivity (Ponemon 1995); and locus of control (Tsui and Gul 1996). Many empirical studies suggest a lower level of moral reasoning in accounting students and accountants than would be expected, given their age and education (Armstrong 1987; Arnold and Ponemon 1991; Bernardi and Arnold 1997; Fisher and Ott 1996; Lampe and Finn 1992; Ponemon 1990, 1992; Shaub 1994; Sweeney 1995). There is a caveat to these findings, however, as comparisons are made with previously published results, rather than with comparable adults in the study context.

Work with context-specific DIT instruments sheds some light on the impact of context. Work with accounting students (Dellaportas et al. 2006; Thorne 2001) and auditors and accounting students⁴ (Massey 2002) indicates that participants apply a more principled level of reasoning to resolve social dilemmas than to resolve moral dilemmas in accounting or auditing. These studies, however, do not include control groups of non-specialists and thus the cause of the difference is ambiguous: is it the context, specialist knowledge, or the sort of individuals attracted to these areas? Fisher's (1997) study of taxpayers found that they exhibited lower levels of reasoning in dilemmas in a tax paying context, but whether the impact of context is the same for tax professionals and taxpayers, given the difference in knowledge and socialization (and, indeed, the different roles they play in the context) needs clarification.

Research Questions and Hypotheses

Our research questions seek primarily to unpick the issues of the individual, the context, and professional training/socialization, as follows.

1. Is the level of moral reasoning of those in the tax profession generally lower than in the population as a whole (i.e., does the tax profession attract people prone to low levels of moral reasoning)?
2. Does locating an ethical dilemma in a tax context alter the way in which people reason about it?

³ Intervention studies involve various kinds of ethics courses designed to enhance moral reasoning in participants. Typically participants are tested pre- and post-intervention to assess the effectiveness of the course.

⁴ Proxying entry-level auditors.

3. Does the professional involvement of tax professionals with tax affect their reasoning in the tax context?
4. Does the socialization/training of tax professionals affect their reasoning in a tax context?

The literature discussed above suggests that accounting practitioners have lower levels of moral reasoning than is expected, given their age and education. Given this, our initial hypothesis for Research Question 1 will be:

H1 When considering social context ethical dilemmas, tax practitioners will employ lower levels of moral reasoning than non-specialists.

As noted above, however, comparisons in previous studies have either been based on prior research focusing on a similar professional cohort but often from a different time period and jurisdiction or on group averages compiled by the Centre for the Study of Ethical Development (CSED) in Alabama (formerly Minnesota), which were published in 1986 (Rest 1986b). Here we make use of a control group of adults in the same jurisdiction as the practitioner participants, thus allowing a more meaningful comparison, given that we have no extant information on the average P score for the population in our jurisdiction and time period. This will allow a more accurate determination of whether individuals with intrinsically different cognitive moral development from that of their population of origin are self-selecting into the tax profession.

The control group is also beneficial in addressing Research Questions 2 and 3. Although previous literature in related areas indicates lower levels of reasoning taking place in business contexts, the lack of a control group leaves unclear the issue of whether this is an effect of the context or the individual's role in that context. A comparison of the results for the practitioner and non-specialist control groups in both contexts lets us separate the impact of professional socialization/training and context. Based on previous work with accounting professionals, our initial hypothesis will be that the lower levels of moral reasoning found in professional versus social contexts arise from the professional involvement of the practitioners rather than the context itself.

H2 When considering ethical dilemmas set in a tax context, the moral reasoning level of practitioners will be lower than it was in a social context, but there will be no difference in the levels of moral reasoning involved for non-specialists.

If a context effect is found for practitioners alone, or the context effect is different for practitioners from that for non-specialists, then we can proceed to investigate the source of the effect for professionals indicated in Research Question 4. Professionals differ in their training, tax experience, and

socialization. Training and socialization can be unpicked from tax experience by separately examining tax practitioners from the private sector and practitioners working with the Revenue authority. Both categories will have experience doing tax work. Private sector tax practitioners, however, will have received professional training in tax through the Irish Tax Institute, while the Revenue practitioners are likely to have been trained internally. The socialization of these two categories of practitioner also has a different emphasis. Private sector tax practitioners will have a client focus, looking to manage (and often minimize) their clients' tax liability. Those working for the Revenue authority, however, given its aim to collect tax to fund activities for the common good, might be expected to have a focus on issues closer to those found in the higher levels of moral reasoning in Kohlberg's cognitive moral development model. Our hypothesis is therefore:

H3 When considering tax context ethical dilemmas, private sector tax practitioners will employ a lower level of moral reasoning than Revenue employees.

This kind of examination has not been done in the literature before now, but the make-up of the practitioner sample will facilitate this analysis.

Finally, the literature suggests that there is a need to control for certain demographic variables, which have previously been found to impact on moral reasoning. The DIT literature has identified education as being an important influence on moral reasoning. Rest and Narvaez (1994, pp. 13–14) indicate that ethical reasoning increases with age and education and suggest that 38 % of P score variation is explained by these two variables. As age and level of education increase, P scores also increase. Gilligan (1982) contended that cognitive moral development research contained a gender bias, drawing particular attention to the fact that Kohlberg's research involved interviewing male subjects only. On the basis of 500 studies using the DIT, Rest (1986a) notes that the overwhelming majority of moral reasoning research has found no statistical difference between men and women. Where differences have been found, women are as likely to achieve higher moral reasoning scores as men. These results have been supported in later studies (see, for example, Rest and Narvaez 1994). Given these prior findings, we will consider gender, age, and education as potential control variables in the development of our analysis models, but expect that the level of moral reasoning will not differ based on gender.

Research Method

This study uses a 2×2 quasi-experimental design comparing the moral reasoning of tax practitioners with that of

non-specialists in the context of social and tax-based ethical dilemmas. The test of reasoning in social dilemmas uses the short-form (three scenarios) DIT.⁵ In 1998, an updated version of the DIT was developed, named DIT-2 (Rest and Narvaez 1998; Rest et al. 1999), together with an additional scoring metric which is calculated using specific computer software designed and maintained by the CSED at the Universities of Minnesota and Alabama (Rest et al. 1997). The short form of the original DIT was used in this study primarily for comparability with other studies in this and other professional areas. The aim was also to produce social and tax dilemma scores that had the same basis to address Research Question 1 more fully by allowing a comparison of the scores across the two contexts. It would not have been possible to obtain DIT-2-based measures for the tax context, and so the use of the original instrument is more appropriate for the purposes of this study.

For the tax context, we use a tax-specific version of the DIT, the TPDIT, also with three scenarios, the development of which is described in Doyle et al. (2009). The TPDIT was developed to preserve the psychometric characteristics of the original test and to match it as closely as possible to the three scenario version of the DIT. The difference in the TPDIT, as compared with the DIT, lies in the nature of the dilemmas presented to participants and the related "items for consideration" following each dilemma, all of which are tax practice related. An example of one of the dilemmas included in the TPDIT is set out in Appendix 2.

Two counterbalanced versions of the research instrument were produced, both containing a demographic questionnaire at the end, to allow any order effects to be identified and controlled for. The order of scenarios within the DIT is not manipulated in studies, so this approach was used for the TPDIT also, but the order in which the DIT and TPDIT were presented was counterbalanced.

The research instrument was administered to 384 tax practitioners and 306 non-specialists in Ireland in 2009 using a combination of random, convenience, and snowball sampling techniques. The practitioners worked in a range of tax-related roles in Ireland, including in private practice and in the Revenue authority. The non-specialist sample had no professional involvement in taxation.

There was a 39 % response rate from tax practitioners (150 completed instruments) and a 45 % response rate from non-specialists (137 completed instruments). Following checks for full completion of the scenario-based questions and the subject reliability checks described in the DIT manual (Rest 1986b), a useable sample of 201 instruments was available for analysis (tax practitioners $n = 101$ and non-specialists $n = 100$).

⁵ Permission to use the DIT in this study was obtained from the Centre for the Study of Ethical Development in Alabama (formerly Minnesota).

Table 2 Demographic information on participants

	Tax practitioners	Non-specialists
Educated to degree level or above	80 %	76 %
Gender	M—44 %, F—56 %	M—39 %, F—60 %
Mean age (SD)	34.44 (9.92)	40.39 (14.14)
Mean years of tax experience (SD)	11.77 (10.31) Range 1–38	–

Percentages do not add to 100 where data are missing

Results

Overview of Samples and Preliminary Checks

As indicated above, two groups of participants took part in the study, tax practitioners and non-specialists. Demographic information on the two groups is given in Table 2. Potential relationships between age, gender, and education, and the two dependent variables (P score on the DIT, PSCOREDIT, and P score on the TPDIT, PSCORETAX) were explored using multiple regression models (see Tables 3, 4). The regression models included an indicator of the participant group (TAXPRACTITIONER, set to 1 for tax practitioners and 0 for non-specialists) and an indicator of the order of the two contexts in the instrument to control for any order effects (TAXFIRST, set to 1 if the tax based dilemmas were presented first and 0 when the social dilemmas were presented first). Education was classified in terms of whether the individual’s highest qualification was below degree level, at degree level, or at postgraduate level, and dummy variables for below degree level (EDNODEGREE) and postgraduate education (EDPG) were included in the models.

These models indicated that the P scores of those without a degree were significantly lower than for graduates (the base category) for social dilemmas, although possession of a higher degree did not make a significant difference over and above the effect of a first degree. An indicator of non-graduate status was therefore carried forward into the main models as a covariate. Order effects were also identified in both regressions, and order was therefore controlled for in later analysis.

Hypothesis Testing

Research Questions 1–3 were explored using a GLM Repeated Measures analysis, with the two dependent variables captured by a within-subjects measure CONTEXT and TAXPRACTITIONER as a between-subjects measure. TAXFIRST was also included as a between-subjects measure to control for order effects and EDNODEGREE (indicating

Table 3 Predictors of PSCOREDIT

Means for PSCOREDIT by group			
Group	PSCOREDIT		
Non-specialists	31.168		
Tax practitioners	31.600		
Of tax practitioners:			
Revenue practitioners	28.056		
Private sector practitioners	32.858		
Independent variables	Coefficient	T ratio	p value
TAXPRACTITIONER	0.741	0.319	0.750
TAXFIRST	–5.513	–2.480	0.014**
Age	0.012	0.127	0.899
Gender	2.223	0.995	0.321
EDNODEGREE	–9.346	–2.973	0.003***
EDPG	0.830	0.322	0.748

Significance levels: *** .01, ** .05, * <.1

Table 4 Predictors of PSCORETAX

Means for PSCORETAX by group			
Group	PSCORETAX		
Non-specialists	28.522		
Tax practitioners	21.266		
Of tax practitioners:			
Revenue practitioners	26.944		
Private sector practitioners	19.234		
Independent variables	Coefficient	T ratio	p value
TAXPRACTITIONER	–6.681	–2.995	0.003***
TAXFIRST	–4.875	–2.285	0.023**
Age	0.068	0.731	0.466
Gender	2.699	1.259	0.210
EDNODEGREE	–4.161	–1.379	0.170
EDPG	–0.262	–0.106	0.916

Significance levels: *** .01, ** .05, * <.1

education ending below degree level) was included as a covariate. The results of this analysis are shown in Table 5.

The intuition of our results is clear in the interaction graph in Fig. 1 below. CONTEXT, the within-subjects measure reflecting the two P Scores PSCOREDIT and PSCORETAX, is significant ($p < 0.001$) as is TAXPRACTITIONER ($p < 0.05$) and there is a significant interaction ($p < 0.01$). The marginal means suggest that the significant main effect for context is driven by the tax practitioners, giving rise to the significant interaction. Separate GLMs for practitioners and non-specialists confirmed this, with no significant effect of CONTEXT for non-specialists ($p > 0.1$ for non-specialists, $p < 0.001$ for practitioners). A MANOVA on both scores

Table 5 GLM repeated measures model looking at the impact of context and participant group (non-specialists vs. tax practitioners)

	Type III sum of squares	df	Mean square	<i>F</i>	Sig.
Within-subjects effects and interactions					
CONTEXT	4848.809	1	4848.809	25.734	0.000***
CONTEXT * EDNODEGREE	638.951	1	638.951	3.391	0.067*
CONTEXT * TAXPRACTITIONER	1557.927	1	1557.927	8.268	0.004***
CONTEXT * TAXFIRST	45.969	1	45.969	0.244	0.622
CONTEXT * TAXFIRST * TAXPRACTITIONER	499.872	1	499.872	2.653	0.105
Between-subjects effects and interactions					
EDNODEGREE	2916.443	1	2916.443	11.625	0.001***
TAXPRACTITIONER	1010.463	1	1010.463	4.028	0.046**
TAXFIRST	2179.934	1	2179.934	8.689	0.004***
TAXFIRST * TAXPRACTITIONER	157.116	1	157.116	0.626	0.430

Significance levels: *** .01, ** .05, * <.1

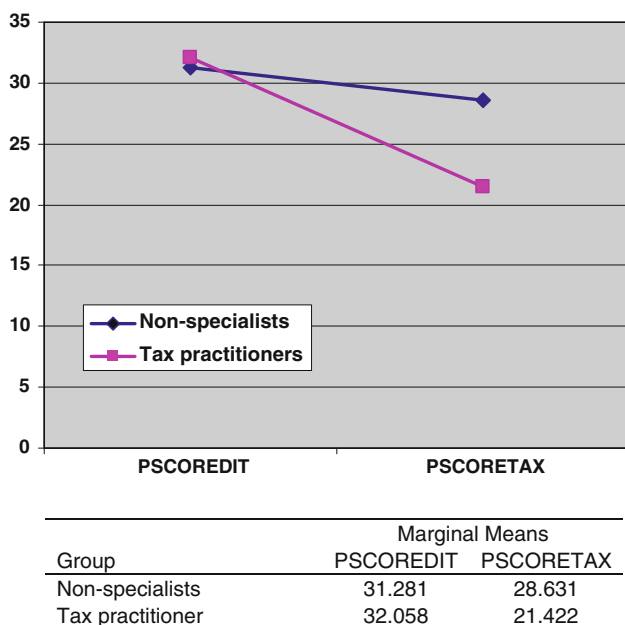


Fig. 1 Interaction graph for PSCOREDIT and PSCORETAX for non-specialists and tax practitioners (marginal means)

with TAXPRACTITIONER as a between-subjects effect confirmed that TAXPRACTITIONER is not significant for PSCOREDIT ($p > 0.1$ for PSCOREDIT, $p < 0.01$ for PSCORETAX).

Overall these results provide a coherent picture, and one which is also supported by the regression results in the preliminary checks. There is no support for the position that tax practitioners have a generally lower level of moral reasoning than the population as a whole in their area, and H1 is thus rejected. The value of having a control group, and thus comparing with ordinary people in the same geographic and temporal context, is clear here. Although previous studies have found that accounting professionals have lower levels of moral reasoning on the

social dilemmas in the DIT, these have been compared with previously published results. Our average P scores in the social context are also lower than published results might lead us to expect, suggesting that geographic location and/or time period may lead to a different general level of moral reasoning in populations.

Although the results indicate an impact of context, this is driven by the tax practitioners, and our results are consistent with H2, with tax practitioners being affected by context, whereas non-specialists do not reason at a significantly different level in social as opposed to tax contexts. As predicted, the tax practitioners show a lower level of moral reasoning in their professional context.

To investigate Research Question 4, a further GLM Repeated Measures analysis was undertaken. As before, the two dependent variables were captured by a within-subjects measure CONTEXT, and TAXFIRST was included as a between-subjects measure to control for order effects, with EDNODEGREE being included as a covariate. In this model, a different between-subjects factor, PARTICIPANT, was used, which indicated whether the individual concerned was a non-specialist, a tax practitioner working for the Revenue or a tax practitioner working in the private sector (75 practitioners could be identified as private sector and 24 as working for the Revenue).⁶ The results of this analysis are shown in Table 6. Again there is a significant interaction between CONTEXT and the type of participant ($p < 0.01$). The intuition of the results is clear in the interaction graph (Fig. 2) and supports our hypothesis that private sector practitioners will employ lower levels of moral reasoning in the tax context. Indeed, the result for Revenue practitioners is much closer to non-specialists than to the other practitioners.

⁶ The remaining two practitioners were academics and were excluded from this analysis.

Table 6 GLM repeated measures model looking at the impact of context and participant group (non-specialists vs. Revenue practitioner versus private sector practitioner)

	Type III sum of squares	df	Mean square	F	Sig.
Within-subjects effects and interactions					
CONTEXT	2520.463	1	2520.463	13.581	0.000***
CONTEXT * EDNODEGREE	261.017	1	261.017	1.406	0.237
CONTEXT * PARTICIPANT	2701.649	2	1350.825	7.279	0.001***
CONTEXT * TAXFIRST	258.978	1	258.978	1.395	0.239
CONTEXT * TAXFIRST * PARTICIPANT	604.562	2	302.281	1.629	0.199
Between-subjects effects and interactions					
EDNODEGREE	3065.364	1	3065.364	12.147	0.001***
TAXFIRST	2313.226	1	2313.226	9.166	0.003***
PARTICIPANT	1460.529	2	730.265	2.894	0.058*
TAXFIRST * PARTICIPANT	264.604	2	132.302	0.524	0.593

Significance levels: *** .01, ** .05, * <.1

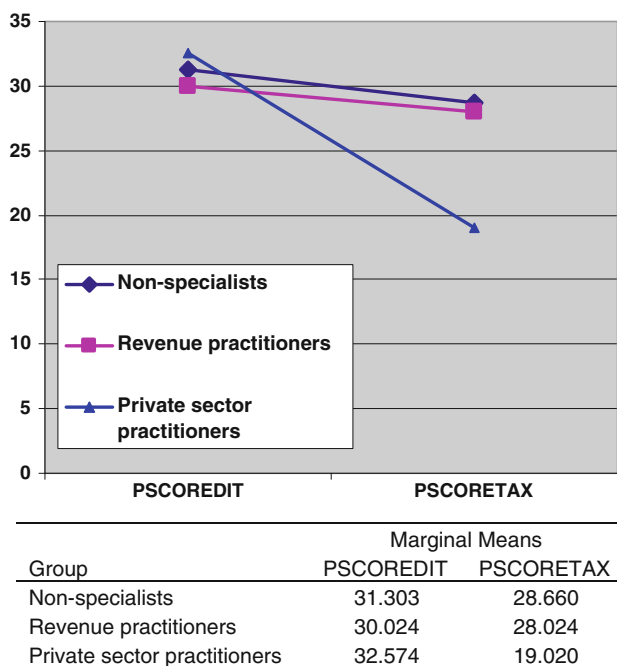


Fig. 2 Interaction graph for PSCOREDIT and PSCORETAX for non-specialists, Revenue Tax practitioners, and private sector tax practitioners (marginal means)

A MANOVA on both scores with PARTICIPANT as a between-subjects effect confirmed this situation. PARTICIPANT only had a significant main effect for PSCORETAX ($p < 0.001$). Pairwise comparisons (Bonferroni adjusted) confirmed that there was no significant difference between participant groups in terms of PSCOREDIT (> 0.1 in all comparisons), but that the private sector practitioners had significantly lower scores for PSCORETAX than the Revenue practitioners ($p < 0.05$) and non-specialists ($p < 0.001$).

Discussion

The dominant message emerging from this analysis of moral reasoning scores is that tax practitioners’ moral reasoning is less principled when they are presented with dilemmas in a tax context than when considering dilemmas in a social context. This finding is consistent with previous studies in the accounting, auditing, and management domains utilizing context-specific instruments to assess the moral reasoning of professionals (see, for example, Lovisky et al. 2007; Massey 2002; Thorne 2000). However, the use of a control group of non-specialists in this study facilitates a more comprehensive assessment of the reasoning of tax practitioners in comparison with the general public.

The fact that tax practitioners do not reason significantly differently from non-specialists in the social context suggests that individuals whose reasoning is less principled than the norm (as measured by the non-specialist control group) are not self-selecting into the tax profession. All participants reason at a similar level in the social domain, with the difference in means being below one percentage point. Although having a similar level of principled reasoning does not mean that identical principled items for consideration were selected (given the maximum score possible is around three times that achieved by the participants in this study), principled items all have a similar focus and it thus indicates similar levels of concern for more global considerations. Once the context changed to tax, however, differences in moral reasoning were evident, with tax practitioners utilizing significantly lower level moral reasoning than non-specialists who remained consistent in their reasoning across both contexts. This difference was substantial in size, with the level of principled moral reasoning being 34 % higher in non-specialists

(average PSCORETAX of 28.522 vs. 21.267). This suggests that something connected with working in the tax practice environment causes principled reasoning to be used less by tax practitioners in this situation. The tax domain of itself does not cause this change, as evidenced by the fact that the reasoning of non-specialists does not alter significantly when the context changes. The P scores achieved by tax practitioners in a tax context (mean PSCORETAX 21.267) were very low compared with their P scores in a social context (mean PSCOREDIT 31.600). This may be driven by the weight tax practitioners give to legal rules in the tax context, of which non-specialists are unaware, but further analysis is needed before any such conclusions could be reached.

Further investigation of the drivers of differences in reasoning was facilitated by a comparison of private sector and Revenue practitioners. Revenue practitioners show a pattern of reasoning that is very similar to non-specialists and their reasoning is not at a significantly different level in either the social or tax contexts. On the basis that Revenue practitioners fulfill a public service role with an emphasis on collecting the maximum tax revenue in accordance with legislation, in order to fund government spending and support society as a whole, this finding is, perhaps, not surprising. The fact that Revenue practitioners reason differently from private sector practitioners, however, indicates that tax knowledge and experience are not what is driving the difference between reasoning in the social and tax contexts for practitioners, as Revenue practitioners also possess tax knowledge and years of experience working in tax. Equally, moving from a social context to a work-related context is not driving the difference, as tax is also the working domain for Revenue practitioners. The results suggest that the differences observed in the reasoning of tax practitioners in the tax domain arise only in a private practice environment. While the results do not identify the reasons for the differences in moral reasoning in a private tax practice domain, the differences found may be due to a socialization effect in private sector tax practice.

The P scores that emerged from this analysis are interesting in themselves. The mean DIT P scores of all participant groups in this study, as shown in Table 3, range from 28.1 for Revenue practitioners to 32.9 for private sector practitioners. These compare quite poorly with the average scores reported by Rest (1986b, p. ii) on the basis of the norms compiled by the CSED in Alabama. These figures are set out in Table 7 below.

According to Table 7, the scores from this study are most comparable with those of average senior high students and are well below the level of adults in general and college students. These scores are also much lower than the average P scores of accountants found in other studies which range from 38.1 (Ponemon 1992) to 41.3 (Shaub

Table 7 Mean DIT P scores—Rest (1986b, p. ii)

Group	Mean DIT P score
Moral philosophy and political science doctoral students	65.2
Seminarians in a liberal protestant seminary	59.8
Advanced law students	52.2
Practicing medical physicians	49.5
Average college student	42.3
Average of adults in general	40.0
Average senior high student	31.8
Average junior high student	21.9
Institutionalized delinquent boys, 16 years old	18.9

1994). The low scores found in this study do suggest that, when studying the impact of work contexts on moral reasoning, account needs to be taken of differences in levels of moral reasoning in relation to social dilemmas across populations. Using scores compiled by the CSED, over hundreds of studies in different jurisdictions and spanning a long period in time, may not be so relevant for this sort of investigation. Many DIT studies date from the 1970s and are based on research undertaken in the United States. In an accounting and tax context, they also pre-date the greater awareness of ethical issues following the Enron and KPMG scandals. It may be unwise to assume that average P scores calculated in the 1970s would be replicated today, as moral standards, especially in financial/business areas, may have changed in the intervening years (see, for example, Cole and Smith 1996; Cordeiro 2003; Glen and Loo 1993).

The results did not reveal any significant differences in the moral reasoning scores of males and females. This finding is consistent with the prior literature in accounting, most of which finds no statistically significant difference in moral reasoning between the sexes (Abdolmohammadi et al. 2003; Ponemon 1990, 1992; Tsui 1996).

Age also does not appear to effect moral reasoning scores in this study. This finding is consistent with Shaub (1994) but not with many other studies that have examined age (e.g., Etherington and Hill 1998; Eynon et al. 1997; Jones and Hildebeitel 1995; Ponemon 1990).

Conclusions

The aim of this article was to examine the moral reasoning of tax practitioners in both a work and a social domain using a control group of non-specialists. The use of moral reasoning measures has never previously been a focus of attention in the literature on the tax profession, despite the fact that the theory of cognitive moral development and the DIT have been used extensively to examine accountants

and, to a more limited extent, lawyers (Earnest and Bebeau 2000; Scofield 1997; Scofield et al. 2004). The design of the study allowed the context in which dilemmas originate to be unpicked from the nature of individuals who enter the tax profession and from the training/socialization of professionals in the area. The inclusion of a control group of non-specialists in the design is another unique contribution of the article, both from the viewpoint of tax research and of context-specific DIT research, allowing this level of unpacking of effects in the analysis.

In that tax practitioners do not use levels of moral reasoning that are statistically significantly different from those used by non-specialists in a social context, the results provide some assurance that individuals who utilize a lower level of moral reasoning than might be considered a societal norm are not self-selecting into the tax profession. However, once the context changes to tax, the moral reasoning of practitioners in private practice declines significantly from that used in a social context and from that used by non-specialists. Interestingly, Revenue practitioners, for whom tax is also a work-related context and who possess technical tax knowledge and experience, do not display the same change in reasoning as private sector practitioners: their tax context reasoning remains consistent with their social reasoning. This suggests that it is the private sector tax practice environment (i.e., a client-oriented one) that drives the difference in tax and social context moral reasoning in tax practitioners. These findings therefore support the notion of a socialization effect in tax practice, a concept widely accepted in the accounting domain but not previously examined separately for tax.

In addition to making a contribution to the academic literature, this research informs several other areas. The knowledge that tax practitioners use much lower levels of moral reasoning in a work context as opposed to a social one should be considered in the design of both academic and professional training/education programs. Rest (1986a) contends that ethical reasoning might be enhanced through certain forms of instruction, and many studies have found that the completion of ethics courses in college is associated with higher level moral reasoning in accountants or accounting students as measured using the DIT (Armstrong 1993; Eynon et al. 1997; Shaub 1994; Sweeney 1995). Our results, however, suggest that ethics training in social contexts may not have a comparable impact on work-related moral reasoning. Rather we suggest that, to be most effective, training programs should incorporate formal ethics training that uses specific tax-related scenarios, as put forward by Bobek and Radtke (2007). The use of the focal context in professional ethics training gives the best potential for challenging socialized responses, perhaps by comparison with similar social scenarios where professionals may find themselves reasoning differently. The tax

profession is governed by relevant professional institutes, and such bodies should also take account of the dichotomy in reasoning between contexts when considering how to promote higher levels of moral reasoning in the work environment.

It is common practice for policy makers, professions, and even corporate entities to develop codes of conduct or guidelines as to best practice in particular areas. Codes/guidelines can either be principles based or rules based. Knowing on which basis the individuals concerned approach ethical dilemmas may be useful to the relevant drafting bodies by indicating how best to encourage compliance with codes of conduct or best practice guidelines. Given that tax practitioners appear to reason using a lower level of moral reasoning in a work context, codes or guidelines encompassing prescriptive procedures may be more effective than principles-based guidelines. The more pertinent question that arises, perhaps, is whether it is better for policy makers and/or the profession to support the development of principled thinkers who rely on their own personal reasoning processes to dictate their behavior, or whether the profession would be better served by rule-oriented practitioners who are guided by the profession's detailed instructions in handling ethical issues. Further research on how principled thinking might be promoted would be needed to support the former approach.

To summarize, this article makes a contribution not only to academic knowledge and debate but also informs policy makers, educators, and the tax profession as represented by the professional institutes.

Acknowledgments The authors gratefully acknowledge the helpful comments from anonymous reviewers and delegates on earlier versions of the article at the following conferences: the American Accounting Association Ethics Symposium, 2010, San Francisco; the American Accounting Association Northeast Region Meeting, 2009, Cambridge, Massachusetts; the Society for Judgement & Decision Making Annual Meeting, 2009, Boston, Massachusetts; the IRS Research Conference 2009, Washington DC; and the Tax Research Network Conference, 2009, Cardiff, Wales.

Appendix 1

DIT Scenario One: Heinz and the Drug (Rest 1986b).⁷

⁷ The Heinz scenario has been slightly altered from the original Rest (1986b) version in order to update the language slightly for the Irish jurisdiction context used in this study. The original dollar figure mentioned in the scenario has been changed to Euros and the word "druggist" has been replaced by "pharmacist."

(The indication of the stage of moral reasoning represented by each item for consideration below is not present in the instrument used with participants).

In a small European town, a woman was near death from a rare kind of cancer. There was one drug that doctors thought might save her. It was a form of radium that a pharmacist in the same town had recently discovered. The drug was expensive to make, but the pharmacist was charging 10 times what the drug cost to make. He paid €200 for the radium and charged €2,000 for a small dose of the drug. The sick woman’s husband, Heinz, went to everyone he knew to borrow the money, but he could only get together about €1,000, which is half of what it cost. He told the pharmacist that his wife was dying and asked him to sell it cheaper or let him pay later, but the pharmacist said, “No. I discovered the drug and I’m going to make money from it”. So Heinz got desperate and began to think about breaking into the man’s store to steal the drug for his wife.

Appendix 2

Tax-DIT Scenario One: Capital Allowances

Anne is a tax practitioner with an accounting firm. She is working on a capital allowances claim to benefit one of her firm’s corporate clients that is in financial distress. Despite profitable trading, the client has suffered severe cashflow problems as a result of adverse economic conditions. The capital allowances claim relates to a new factory building and will significantly reduce taxable corporate profits (and thus the tax the client has to pay). To be eligible for capital allowances, the factory has to be in use at the end of the client’s financial year. Without the reduction in tax from the capital allowances, it is unlikely that the company will survive, which will result in 5,000 employees losing their jobs.

It is now a month since the client’s financial year end and Anne has asked the financial controller for

Should Heinz steal the drug?
 Should steal it Can’t decide Should not steal it

Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
1. Whether a community’s laws are going to be upheld. (Stage 4)					
2. Isn’t it only natural for a loving husband to care so much for his wife that he’d steal? (Stage 3)					
3. Is Heinz willing to risk getting shot as a burglar or going to jail for the chance that stealing the drug might help? (Stage 2)					
4. Whether Heinz is a professional wrestler, or has considerable influence with professional wrestlers. (M item)					
5. Whether Heinz is stealing for himself or doing this solely to help someone else. (Stage 3)					
6. Whether the pharmacist’s rights to his invention have to be respected. (Stage 4)					
7. Whether the essence of living is more encompassing than the termination of dying, socially and individually. (M item)					
8. What values are going to be the basis for governing how people act towards each other. (Stage 6)					
9. Whether the pharmacist is going to be allowed to hide behind a worthless law which only protects the rich anyway. (A item)					
10. Whether the law in this case is getting in the way of the most basic claim of any member of society. (Stage 5)					
11. Whether the pharmacist deserves to be robbed for being so greedy and cruel. (Stage 3)					
12. Would stealing in such a case bring about more total good for the whole society or not? (Stage 5)					

From the list of questions above, select the four most important:

Most important item	1	2	3	4	5	6	7	8	9	10	11	12
Second most important item	1	2	3	4	5	6	7	8	9	10	11	12
Third most important item	1	2	3	4	5	6	7	8	9	10	11	12
Fourth most important item	1	2	3	4	5	6	7	8	9	10	11	12

She should Can't decide She shouldn't

Rate the following 12 items in terms of importance	Great	Much	Some	Little	No
1. Would it be fair to all the taxpayers who have met the legal requirements to claim capital allowances if one client is permitted to claim allowances without meeting the criteria?					
2. What impact will the company's demise have on the accounting firm Anne works for?					
3. Under self-assessment, once Anne has the proper documentation on file her position is covered regardless of whether the building is actually 'in use'.					
4. Whether Anne's notification juxtaposes immediate Revenue authority cognisant of the client's actions.					
5. Whether Anne and the financial controller are close friends					
6. Isn't a tax practitioner required to file an accurate tax return?					
7. Aren't capital allowances the essence of alternative displacement?					
8. Which values best determine how tax practitioners should interact with their clients and engage with the tax legislation?					
9. Whether a tax system that includes random and meaningless definitions ought to be completely abandoned.					
10. Whether the saving of 5,000 jobs will bring about the best result for society as a whole.					
11. Whether the firm's reputation will be damaged if the claim is subsequently challenged.					
12. Whether it is socially acceptable for management inadequacies to deprive employees of their opportunity to earn a living.					

From the list of questions above, select the four most important:

Most important item	1	2	3	4	5	6	7	8	9	10	11	12
Second most important item	1	2	3	4	5	6	7	8	9	10	11	12
Third most important item	1	2	3	4	5	6	7	8	9	10	11	12
Fourth most important item	1	2	3	4	5	6	7	8	9	10	11	12

documentary evidence that the factory was in use at the end of the financial year. The financial controller sends her a copy of the minutes of the latest directors' board meeting. The last item on the board minutes notes that the factory premises became fully operational on the last day of the financial year. However, Anne is convinced that this was not the case as she drives past the factory every evening and it is clearly unoccupied. However, she also knows that the company will not survive if the capital allowances cannot be claimed. Should Anne file a tax return claiming capital allowances for the financial year?

References

Abdolmohammadi, M. J., Read, W. J., & Scarbrough, D. (2003). Does selection-socialization help to explain accountants' weak ethical reasoning? *Journal of Business Ethics*, 42(1), 71–81.

Anderson-Gough, F., Grey, C., & Robson, K. (2002). Accounting professionals and the accounting profession: Linking conduct and context. *Accounting and Business Research*, 32(1), 41–56.

Armstrong, M. B. (1987). Moral development and accounting education. *Journal of Accounting Education*, 5(1), 27–43.

Armstrong, M. B. (1993). Ethics and professionalism in accounting education: A sample course. *Journal of Accounting Education*, 11(1), 77–92.

Arnold, D. F., & Ponemon, L. A. (1991). 'Internal Auditors' perceptions of whistle-blowing and the influence of moral reasoning: An experiment. *Auditing: A Journal of Practice and Theory*, 10(2), 1–15.

Bay, D. D., & Greenberg, R. R. (2001). The relationship of the DIT and behavior: A replication. *Issues in Accounting Education*, 16(3), 367–380.

Bernardi, R. A., & Arnold, D. F. (1997). An examination of moral development within public accounting by gender, staff level and firm. *Contemporary Accounting Research*, 14(4), 653–668.

Bobek, D. D., & Radtke, R. R. (2007). An experimental investigation of tax professionals' ethical environments. *Journal of the American Taxation Association*, 29(2), 63–84.

Cole, B. C., & Smith, D. L. (1996). Perceptions of business ethics: Students vs. business people. *Journal of Business Ethics*, 15(8), 889–896.

Collins, F. (1978). The interaction of budget characteristics and personality variables with budgetary response attitudes. *The Accounting Review*, 53(2), 324–335.

Cordeiro, W. P. (2003). The only solution to the decline in business ethics: Ethical managers. *Teaching Business Ethics*, 7(3), 265–277.

- Cushman, F., Young, L., & Hauser, M. (2006). The role of conscious reasoning and intuition in moral judgment. *Psychology Science*, 17(12), 1082–1089.
- Dellaportas, S., Cooper, B. J., & Leung, P. (2006). Measuring moral judgement and the implications of cooperative education and rule-based learning. *Accounting and Finance*, 46(1), 53–70.
- Douglas, P. C., Davidson, R. A., & Schwartz, B. N. (2001). The effect of organizational culture and ethical orientation on accountants' ethical judgments. *Journal of Business Ethics*, 34(2), 101–121.
- Doyle, E., Frecknall-Hughes, J., & Summers, B. (2009). Research methods in taxation ethics: Developing the Defining Issues Test (DIT) for a tax specific scenario. *Journal of Business Ethics*, 88(1 – Special Issue), 35–52.
- Dyreg, S. D., Hanlon, M., & Maydew, E. L. (2007). Long-run corporate tax avoidance. *The Accounting Review*, 83(1), 61–82.
- Dyreg, S. D., Hanlon, M., & Maydew, E. L. (2010). The effects of executives on corporate tax avoidance. *The Accounting Review*, 85(4), 1163–1189.
- Earnest, P., & Bebeau, M. J. (2000). *Use of defining issues test in leadership education*. Presented at the 26th Annual Conference of the Association of Moral Education, Glasgow, Scotland.
- Elm, D. R., & Nichols, M. L. (1993). An investigation of the moral reasoning of managers. *Journal of Business Ethics*, 12(11), 817–833.
- Etherington, L., & Hill, N. (1998). Ethical development of CMAs: A focus on non-public accountants in the United States. *Research on Accounting Ethics*, 4, 225–245.
- Eynon, G., Hill, N., & Stevens, K. (1997). Factors that influence the moral reasoning abilities of accountants: Implications for universities and the profession. *Journal of Business Ethics*, 16(12–13), 1297–1309.
- Fisher, D. (1997). Assessing taxpayer moral reasoning: The development of an objective measure. *Research on Accounting Ethics*, 3, 141–171.
- Fisher, D., & Ott, R. (1996). A study of the relationship between accounting students' moral reasoning and cognitive styles. *Research on Accounting Ethics*, 2, 51–71.
- Fraedrich, J., Thorne, D. M., & Ferrell, O. C. (1994). Assessing the application of cognitive moral development theory to business ethics. *Journal of Business Ethics*, 13(10), 829–838.
- Gilligan, C. F. (1982). *In a different voice: Psychological theory and women's development*. Cambridge, MA: Harvard University Press.
- Glen, J. R., & Loo, M. F. (1993). 'Business Students' and practitioners' ethical decisions over time. *Journal of Business Ethics*, 12(11), 835–847.
- Godar, S. H., O'Connor, P. J., & Taylor, V. A. (2005). Evaluating the ethics of inversion. *Journal of Business Ethics*, 61(1), 1–6.
- Greene, J., & Haidt, J. (2002). How (and where) does moral judgment work? *Trends in Cognitive Sciences*, 16(12), 517–523.
- Greene, J., Sommerville, R., Nystrom, L., Darley, J., & Cohen, J. (2001). An fMRI investigation of emotional engagement in moral judgment. *Science*, 293(5537), 2105–2108.
- Haidt, J. (2007). The new synthesis in moral psychology. *Science*, 316, 998–1003.
- Herman, T. (2004). IRS to issue rules on tax shelters; Ethical guidelines target 'Opinion Letters' often used to justify questionable transactions. *Wall Street Journal D1*, 8 December 2004.
- Hiltebeitel, K., & Jones, S. (1992). An assessment of ethics instruction in accounting education. *Journal of Business Ethics*, 11(1), 37–46.
- Hume, E. C., Larkins, E. R., & Iyer, G. (1999). On compliance with ethical standards in tax return preparation. *Journal of Business Ethics*, 18(2), 229–238.
- Jackall, R. (1988). *Moral mazes*. New York: Oxford University Press.
- Johnston, D. C. (2004). Changes at KPMG after criticism of its tax shelters. *New York Times C1*, 13 January 2004.
- Jones, S., & Hiltebeitel, K. (1995). Organizational influence in a model of the moral decision process of accountants. *Journal of Business Ethics*, 14(6), 417–431.
- Kohlberg, L. (1969). Stage and sequences: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), *Handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.
- Kohlberg, L. (1973). *Collected papers on moral development and moral education*. Mass: Laboratory of Human Development, Harvard University, Cambridge.
- Kohlberg, L. (1981). *Essays on moral development volume 1: The philosophy of moral development*. San Francisco, CA: Harper and Row.
- Lampe, J., & Finn, D. (1992). A model of auditors' ethical decision processes. *Auditing: A Journal of Practice and Theory*, 11(Supplement), 33–59.
- Lewicka, M. (1997). Is hate wiser than love? Cognitive and emotional utilities in decision-making. In R. Ranyard, W. Crozier, & O. Svenson (Eds.), *Decision making: Cognitive models and explanations* (pp. 90–106). New York, NY: Routledge.
- Lovinsky, G. E., Trevino, L. K., & Jacobs, R. R. (2007). Assessing managers' ethical decision-making: An objective measure of managerial moral judgment. *Journal of Business Ethics*, 73(3), 263–285.
- Marshall, R. L., Armstrong, R. W., & Smith, M. (1998). The ethical environment of tax practitioners: Western Australian evidence. *Journal of Business Ethics*, 17(12), 1265–1279.
- Massey, D. W. (2002). The importance of context in investigating auditors' moral abilities. *Research on Accounting Ethics*, 8, 195–247.
- Milliron, V. C. (1988). A conceptual model of factors influencing tax preparers' aggressiveness. In S. Moriarty & J. Collins (Eds.), *Contemporary tax research* (pp. 1–15). Oklahoma: University of Oklahoma.
- O'Fallon, M. J., & Butterfield, K. D. (2005). A review of the empirical ethical decision-making literature: 1996–2003. *Journal of Business Ethics*, 59(4), 375–413.
- Ponemon, L. A. (1990). Ethical judgment in accounting: A cognitive-developmental perspective. *Critical Perspectives on Accounting*, 1(2), 191–215.
- Ponemon, L. A. (1992). Ethical reasoning and selection-socialization in accounting. *Accounting, Organizations and Society*, 17(3/4), 239–258.
- Ponemon, L. A. (1995). The objectivity of accountants' litigation support judgments. *The Accounting Review*, 70(3), 467–488.
- Ponemon, L. A., & Gabhart, D. R. L. (1993). *Ethical reasoning in accounting and auditing*. Vancouver, B.C.: Canada Research Foundation.
- Rest, J. (1979a). *Development in judging moral issues*. Minneapolis: University of Minnesota Press.
- Rest, J. (1979b). *Defining issues test*. Minneapolis: University of Minnesota Press.
- Rest, J. (1983). Morality. In J. Flavell & E. Markman (Eds.), *Manual of child psychology, Vol. 3: Cognitive development* (pp. 556–629). New York: John Wiley and Sons.
- Rest, J. (1986a). *Moral development. Advances in research and theory*. New York: Praeger Publishers.
- Rest, J. (1986b). *DIT: Manual for the defining issues test*. Minneapolis: Centre for the Study of Ethical Development, University of Minnesota.
- Rest, J. (1994). Background: Theory and research. In J. Rest & D. Narvaez (Eds.), *Moral development in the professions* (pp. 1–26). Hillsdale, New Jersey: Lawrence Erlbaum Associates, Inc.
- Rest, J., & Narvaez, D. (Eds.). (1994). *Moral development in the professions: Psychology and applied ethics*. Hillsdale, New Jersey: Lawrence Erlbaum Associates.

- Rest, J., & Narvaez, D. (1998). *Supplement to guide for DIT-1*. Minneapolis: Center for the Study of Ethical Development, University of Minnesota.
- Rest, J., Narvaez, D., Bebeau, M., & Thoma, S. (1999). *Postconventional moral thinking: A neo-Kohlbergian approach*. Mahwah, NJ: Lawrence Erlbaum Associates.
- Rest, J., Thoma, S., Narvaez, D., & Bebeau, M. (1997). Alchemy and beyond: Indexing the defining issues test. *Journal of Educational Psychology, 89*(3), 498–507.
- Scannell, K. (2005). KPMG apologizes to avert charges: Firm takes responsibility for improper tax shelters, US Debates Indictment. *Wall Street Journal A3*, 17 June 2005.
- Scofield, S. B. (1997). *Re-examination of the application of cognitive developmental theory to the study of ethics and socialisation in the accounting profession*. Unpublished doctoral dissertation, Louisiana Tech. University, LA.
- Scofield, S., Phillips, T, Jr., & Bailey, C. (2004). An empirical reanalysis of the selection-socialization hypothesis: A research note. *Accounting, Organizations and Society, 29*(5–6), 543–563.
- Shafer, W. E., & Simmons, R. S. (2008). Social responsibility, Machiavellianism and tax avoidance. *Accounting, Auditing and Accountability Journal, 21*(5), 695–720.
- Shaub, M. K. (1994). An analysis of the association of traditional demographic variables with the moral reasoning of auditing students and auditors. *Journal of Accounting Education, 12*(1), 1–26.
- St. Pierre, K., Nelson, E., & Gabbin, A. (1990). A study of the ethical development of accounting majors in relation to other business and non business disciplines. *The Accounting Educators' Journal, 3*(1), 23–35.
- Sweeney, J. (1995). The moral expertise of auditors: An exploratory analysis. *Research on Accounting Ethics, 1*, 213–234.
- Thorne, L. (2000). The development of two measures to assess accountants' prescriptive and deliberative moral reasoning. *Behavioral Research in Accounting, 12*(1), 139–169.
- Thorne, L. (2001). Refocusing ethics education in accounting: An examination of accounting students' tendency to use their cognitive moral capability. *Journal of Accounting Education, 19*(2), 103–117.
- Trevino, L. K. (1986). Ethical decision making in organizations: A person-situation interactionist model. *Academy of Management Review, 11*(3), 601–617.
- Trevino, L. K. (1992). Moral reasoning and business ethics: Implications for research, education, and management. *Journal of Business Ethics, 11*(5–6), 445–459.
- Tsui, J. S. L. (1996). 'Auditors' ethical reasoning: Some audit conflict and cross cultural evidence. *International Journal of Accounting, 31*(1), 121–133.
- Tsui, J. S. L., & Gul, F. A. (1996). 'Auditors' behavior in an audit conflict situation: A research note on the role of locus on control and ethical reasoning. *Accounting, Organizations and Society, 21*(1), 41–51.
- Weber, J. (1990). 'Managers' moral reasoning: Assessing their responses to three moral dilemmas. *Human Relations, 43*(7), 687–702.
- Weber, J. (1991). Adapting Kohlberg to enhance the assessment of managers, moral reasoning. *Business Ethics Quarterly, 1*(3), 293–318.
- Welton, R. E., Lagrone, R. M., & Davis, J. R. (1994). Promoting the moral development of accounting graduate students: An instructional design and assessment. *Accounting Education, 3*(1), 35–50.
- Wilson, R. J. (2009). An examination of corporate tax shelter participants. *The Accounting Review, 84*(3), 969–999.
- Yetmar, S., Cooper, R., & Frank, G. (1998). Ethical issues facing CPA tax practitioners. *CPA Journal, 68*(10), 28–33.

Copyright of Journal of Business Ethics is the property of Springer Science & Business Media B.V. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.